

Polarizer Having Retarder and Liquid Crystal Display
Apparatus Comprising the Same

Abstract

The present invention provides a polarizer having retarder, which has excellent uniformity and biaxial orientation as a whole, further capable of setting a wide range of optical characteristics of biaxial orientation, and provides a liquid crystal apparatus, to which the polarizer having retarder is applied. The polarizer having retarder comprises a polarizing film; and a phase retarder, which includes a substrate of a transparent film and at least one coat layer with birefringent anisotropy being on at least one surface of the substrate. The in-plane retardation value (R_0) of the retarder is not less than 20 nm, and the retardation value along the thickness direction (R') calculated based on the retardation value (R_{40}) measured by inclining by 40° around the slow axis in the plane and the in-plane retardation value (R_0) is more than 40 nm. The liquid crystal apparatus includes the polarizer having retarder combined with a liquid crystal cell.